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## (54) COPOLYIMIDE FILM HAVING IMPROVED PROPERTIES

(57)Abstract:

PURPOSE: To obtain a copolyimide film low in the coefficient of thermal expansion and moisture absorbability and excellent in strength by preparing an aromatic copolyamic acid soln. to produce an aromatic polyimide film by chemical conversion.

CONSTITUTION: An aromatic tetracarboxylic acid component such as biphenyltetracarboxylic acid or pyromellitic acid and an aromatic diamine component such as p-phenylenediamine or diaminodiphenyl ether are reacted in an inert org. solvent in an equimolar ratio at temp. lower than 175° C to form a copolyamic acid soln. which is, in turn, mixed with a conversion chemical agent (e.g.;  $\beta$ -picoline) capable of converting copolyaminc acid to copolyimide and the resulting mixture is cast or extruded on a smooth surface. The obtained aromatic copolyimide film can be easily etched and has the modulus of elasticity of 60-1,200 kpsi, the coefficient of thermal expansion of 5-25 ppm/° C and the coefficient of hygroscopic expansion of 2-30 ppm/% RH.

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